

REMARKS

Claims 1-31 are pending in the application and were finally rejected, prompting the filing on a Request for Continued Examination and this accompanying amendment. Claims 1-31 remain active in the case, with claims 1, 14, 19, 22, 25, 27, and 28 amended herein. Applicant respectfully requests reconsideration of the application in view of the amendment to the claims and the following remarks.

Claim Amendments

In response to Applicant's previous remarks, the Examiner acknowledged that claim words would be given their plain meaning unless they are defined in the specification. Despite this acknowledgment, the final rejection did not acknowledge Applicant's prior showing that "data-handling resource" and "internal state information" are defined in the specification. Instead, the final rejection repeatedly refers in bold italics to the defined terms "*as cited in the claims*," which signifies to the Applicant that the definitions in the specification were disregarded.

In order to have Applicant's explicit definitions fully considered, Applicant has now imported those definitions into the claims. For instance, the specification states "a data-handling resource provides data transformation for one or more data connections in a data communication interface." ('977 Application at 6, ll. 13-14.) This definition is now reflected explicitly in the claims. Claim 1 has been amended to read "first and second data-handling resources connected to said data bus, to provide data transformation for one or more data connections," for instance.

The specification also states that "internal state information is data transformation and communication information, specific to a given data connection, that a data-handling resource

develops over the course of a connection.” (‘977 Application at 6, ll. 16-18.) This definition is now reflected explicitly in the claims. Claim 1 has been amended to read “a resource internal state memory capable of storing internal state information for an existing data connection, the internal state information containing data transformation and data communication information developed by a data-handling resource over the course of the existing data connection.”

Other independent claims have been amended similarly. Some differences exist in order to track the different terminology used in each claim, e.g., claims 22, 25, and 27 reference “active modem connections” instead of “existing data connections.” As a modem is identified in the specification as one type of data-handling resource, these amendments are also fully supported by the specification. No new matter has been added by this amendment.

Claim Rejections - 35 U.S.C. § 102

35 USC § 102 Rejection of Claims 1, 2, 5-16, 19-20, and 28-30

Claims 1, 2, 5-16, 19-20, and 28-30 were rejected under 35 U.S.C. § 102(b) as being anticipated by Atkinson et al. (US 6,381,239 B1). Applicant respectfully traverses this rejection as Atkinson fails to teach the claimed elements of any claim.

Regarding claims 1, 2, and 5-13, Atkinson does not teach a “data-handling resource” as set forth in the claim. First, the “lower rear cards” mentioned by Atkinson (col. 9, l. 61 to col. 10, l. 30) contain no data-handling resource at all. Some such cards “include only connectors and [do] not contain any active components.” (col. 10, ll. 4-6.) Other cards merely disconnect incoming “line, trunk, or other facility wires from their associated front cards and connect them instead to a substitute that serves as a spare for one or more similar cards...” using an external cable in response to a failure or for maintenance. (col. 10, ll. 6-30.) No reference is made to any such card having access to the data bus.

Atkinson's line and switch cards, and their attendant daughter cards, also do not contain a "data-handling resource" as set forth in the claim. Merely switching a phone connection, as taught by Atkinson, does not transform the data traversing that connection. Even converting a waveform from analog to digital or *vice versa* is not a data transformation, but merely a sampling/desampling procedure. Indeed, the specification explains that "[a] modem sends and/or receives digital data in a modulated format compatible with a desired communications medium, but an A/D or D/A converter needed to complete the connection may exist separate from the modem", indicating the converter itself is not such a resource. Atkinson's "daughter cards" can contain "(DSP) resources," but those are not the claimed data-handling resources to provide data transformation for data connections, and indeed no use is given for them beyond ambiguous "voice processing." The described telephony switch does not show or describe any data connection through such a resource—all inputs and outputs pass through the TDM busses to other line, switch, or trunk cards, with no connection shown to a DSP resource. Further, there is no description of one of Atkinson's daughter-card DSPs transferring internal state information to any other DSP in the switch.

Indeed, there is no description of Atkinson saving, retrieving, or otherwise using internal state information as recited in the claims, i.e., "containing data transformation and data communication information developed by a data-handling resource over the course of the existing data connection." The examiner asserts that "tables and software required for call processing," "details about the lines, trunks or other facility interfaced by that card," and line/trunk information databases contain the claimed information. (Atkinson, col. 18, ll. 4-5, 23-30; col. 21, ll. 29-35.) This information merely helps the switch route calls or creates logs of completed calls. It has nothing to do with data transformation or data communication

information developed by a data-handling resource over the course of an existing data connection.

Atkinson does not direct data from one data-handling resource to another without loss of connection. As discussed above, the relay substitution cards merely reroute the external line connections of one switch card to the external line connections of another switch card using some sort of patch cable, instead of directing data from one data-handling resource to another as claimed.

In general, Atkinson contains no "data-handling resource controller" as claimed, no matter how the relay substitution cards operate. The cited portions of Atkinson only reference power cards, expander cards, and database/processor cards, and say nothing of swapping a data-handling resource in mid-call. Although Atkinson does state that a failed switch card may be replaced without dropping connected calls, nothing states that those calls are doing anything more than passing through the switch without data transformation.

To summarize these arguments, Atkinson's switch cards are not the claimed data-handling resources, as they do not perform data transformation and do not develop, save, and/or retrieve the claimed internal state information. The redundant switching of a data stream, in and of itself, is not the claimed invention. The claims require something more—the ability to not only redirect a data stream, but to redirect *data transformation* specific to that data stream, including data transformation and data communication information developed by a data-handling resource during a data connection, to a new processing resource. This capability is wholly missing from Atkinson.

Claims 6 and 7 are patentable for the same reasons as claim 1. Additionally, Atkinson's card 3 is not the claimed resource controller, nor is his card 4 a state memory card. If the Examiner persists in this rejection, it is respectfully requested that the Examiner provide explicit

references to the specification showing where these elements of Atkinson teach the claimed elements.

Claims 8-13 are patentable for the same reasons as claim 1. In rejecting dependent claim 8, the rejection refers to Atkinson's interface card and its tone senders and DTMF receivers (col. 17, ll. 21-29.) Although a DTMF device may technically be regarded as a slow "data-handling resource" under some other definition than the claimed definition, Atkinson does not teach DTMF devices that save internal state information (why would they even do so, as they respond to a predetermined set of tone patterns?) or that can be swapped "without loss of connection" as claimed. Regarding the remainder of the rejection arguments, each has been addressed in the discussion above, i.e., while Atkinson uses a data bus, has processors, incorporates memory, and utilizes redundant cards, each claim recites more than just these features, and/or uses these features in ways not suggested by Atkinson.

Claims 14-16, and 19-20 are patentable for the same reasons as claim 1. Database functions in general do not teach usage as claimed. The relevance of the cited sections of Atkinson regarding claim 20 is not apparent.

Claims 28-30 are patentable for the same reasons as claim 1.

The arguments presented in the previous response to the first office action, to the extent that they are not repeated explicitly here, are in no way diminished by the present amendments to the claims. In light of the arguments above, Applicant respectfully requests withdrawal of this rejection.

35 USC § 102 Rejection of Claims 25-27

Claims 25-27 were rejected under 35 U.S.C. § 102(e) as being anticipated by Fadavi-Ardekani et al., U.S. Patent No. 6,067,317 ("Fadavi"). Applicant respectfully traverses this rejection, as Fadavi fails to teach all elements of any of the rejected claims.

Regarding claim 25, the rejection asserts that Fadavi's Figure 2 "data pump" is an "internal state configuration" as claimed, and that controller 12 and resource port 10 of Figure 2 are an "external state-saving subsystem that communicates the internal state configuration of said modem to a device external to said modem" as claimed. Applicant respectfully disagrees. Although Applicant agrees that Fadavi's resource port allows an external device to "request, share and directly access DCE resources", (col. 3, l. 56), a port is not an "external state-saving subsystem" as claimed. A port is merely a port. A port does not save state, it just provides a data path. There is no teaching or suggestion in Fadavi that the modem possess an "external state-saving subsystem" as claimed.

To Applicant's reading, Fadavi merely transfers data in and out of a modem via a port. Data is not internal state configuration information as claimed.

Claim 26 is patentable for the reasons presented above. Furthermore, claim 26 requires an "external state-loading subsystem". Although Fadavi's modem apparently allows its internal memory to be accessed via resource port 10, that modem contains no subsystem that "pre-configures the internal state configuration of said modem for a pre-existing data connection so that the pre-existing data connection can be transferred to said modem from another modem". Fadavi does not disclose two modems or the transfer of a connection between them—the mere fact that Fadavi allows a DTE to "share" modem tasks for a single connection does not make the DTE a separate modem that can serve a connection that can be transferred to the primary modem.

Claim 27 is patentable for the same reasons presented for the added limitation of claim 26 above.

Claim Rejections - 35 U.S.C. § 103*35 USC § 103 Rejection of Claims 3-4, 17-18, and 22-24*

Claims 3-4, 17-18, and 22-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Atkinson in view of Browning et al., U.S. SIR No. H1814 ("Browning"). Applicant respectfully traverses this rejection as the combination of Browning and Atkinson fail to create a *prima facie* case of obviousness.

Regarding claims 2-4 and 17-18, Applicant has already explained some reasons why Atkinson fails to teach or suggest the parent claims of claims 2-4 and 17-18. Browning contains no teachings or suggestions that would supply what Atkinson lacks regarding the *independent* claim limitations. Thus without even addressing whether Browning suggests the additional limitations of these dependent claims, the combination fails to teach all elements of the claim. Neither reference teaches the resource internal state memory, data-handling resources, and data-handling resource controller as claimed.

Regarding claims 22-24, similar arguments apply. Modem resources are one type of data-handling resource. Neither Atkinson nor Browning teaches or suggests multiple modem resources "each connected to said data bus and to said resource internal state memory such that internal state information from the modem resources is savable in said resource internal state memory and is retrievable from said resource internal state memory by other modem resources", as claimed. Without addressing other differences, this single difference defeats a *prima facie* case, as the combined references fail to teach all elements of the claim.

35 USC § 103 Rejection of Claim 21

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Atkinson in view of McHale et al., U.S. Patent No. 6,385,203 B2 ("McHale"). Applicant respectfully

traverses this rejection as the combination of McHale and Atkinson fail to create a *prima facie* case of obviousness.

Regarding claim 21, Applicant has already shown above some reasons why Atkinson fails to teach all of the elements of claim 19, from which claim 21 depends. The inclusion of the teachings of McHale does not overcome these deficiencies. Although McHale saves "profile information" for XDSL connections, McHale actually **drops** connections that are idle, and then uses the "profile information" to speed later reconnection of that service at some later time when data transfer is again required. McHale, like Atkinson, neither teaches nor suggests saving internal state information sufficient to allow redirecting data between data-handling resources "without loss of connection".

35 USC § 103 Rejection of Claim 31

Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Atkinson in view of Timm et al., U.S. Patent No. 6,055,268 ("Timm"). Applicant respectfully traverses this rejection as the combination of Timm and Atkinson fail to create a *prima facie* case of obviousness.

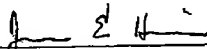
Applicant acknowledges that Timm indicates that a single DSP can process multiple simultaneous connections. But the Examiner has not pointed to, and Applicant cannot find, any teaching or suggestion in either reference to "distribut[e] the processing of said multiple data connections [from the same active resource] to multiple data handling resources having excess capacity". Timm also does not cure the deficiencies in Atkinson regarding claim 28, as pointed out above.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-31 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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RESPONSE TO
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